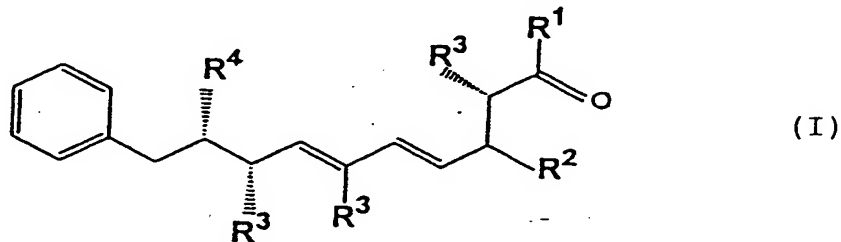


AMENDED CLAIMS PER INTERNATIONAL PRELIMINARY EXAMINATION REPORT  
DATED 19 JULY 2001

Claims

1. A compound comprising one or more polypeptides providing a binding site of a monoclonal, polyclonal or recombinant antibody or a functionally active derivative or part thereof for a group represented by the following formula (I)



which is part of a toxin derived from a cyanobacterium, wherein

group R<sup>1</sup> represents a halogen atom, -OSO<sub>3</sub>, -OR' or -NR'<sub>2</sub> and

group R<sup>2</sup> represents hydrogen, (C<sub>1</sub>-C<sub>4</sub>)alkyl, (C<sub>1</sub>-C<sub>4</sub>)alkoxy, (C<sub>1</sub>-C<sub>4</sub>)acyl, (C<sub>1</sub>-C<sub>4</sub>)aminoacyl or (C<sub>1</sub>-C<sub>4</sub>)carboxyaminoacyl, or the groups R<sup>1</sup> and R<sup>2</sup> are connected to each other to form a cyclic moiety,

the groups R<sup>3</sup> which may be the same or different are each independently selected from the group consisting of hydrogen and (C<sub>1</sub>-C<sub>4</sub>)alkyl,

group R<sup>4</sup> represents (C<sub>1</sub>-C<sub>4</sub>)alkoxy,

and wherein the phenyl group may be substituted or unsubstituted.

2. The compound according to claim 1, wherein the groups R' represent independently from each other hydrogen, substituted or unsubstituted (C<sub>1</sub>-C<sub>4</sub>)alkyl or (C<sub>1</sub>-C<sub>4</sub>)acyl, when bound to nitrogen.

*reads on A16 to microcystin<sup>2</sup>*

*see p.16*

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3. The compound according to claim 1 or 2, wherein the groups  $R^3$  each represent methyl and group  $R^4$  represents methoxy.
- 5 4. The compound according to any one of claims 1 to 3, wherein group  $R^1$  represents aminoacyl and group  $R^2$  represents  $(C_1-C_4)$ acyl.
- 10 5. The compound according to claim 4, wherein group  $R^1$  represents glycyl or D-alanyl and group  $R^2$  represents acetyl.
6. The compound according to any one of claims 1 to 5, wherein group  $R^1$  represents  $-NH_2$  and group  $R^2$  represents glutamidyl or 2-aminopropionamidyl.
- 15 7. The compound according to any one of claims 1 to 6, wherein the toxin is selected from the group consisting of microcystin and nodularin congeners.
- 20 8. The compound according to any one of claims 1 to 7 which is a polyclonal, monoclonal or recombinant antibody or a functionally active derivative or fragment thereof.
9. A method for the preparation of the compound according to any one of claims 1 to 8 comprising the steps of
- 25 (a) preparing a compound containing a group represented by formula (I) as defined in any one of claims 1 to 7,
- (b) coupling the compound of step (a) to a carrier.
- 30 10. The method according to claim 9, wherein the carrier is a polymeric substance.

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11. The method according to claim 10, wherein the polymeric carrier is selected from the group consisting of polyethyleneglycol, polypeptides, proteins, polysaccharides or plastic supports. <sup>2</sup>

12. The method according to claim 11, wherein the protein carrier is selected from bovine serum albumin, ovalbumin, cationised bovine serum albumin or horseradish peroxidase.

13. The method according to any one of claims 9 to 12 which further comprises the steps of

(c) immunizing an animal with the conjugate obtained in step (b), and

(d) isolating the animal's blood, blood serum and/or spleenocytes.

14. A diagnostic kit containing the compound according to any one of claims 1 to 8.

15. An affinity matrix containing the compound according to any one of claims 1 to 8 coupled to a polymeric resin.

16. Use of the compound according to any one of claims 1 to 8 for the detection of a compound containing the group represented by the formula (I).

17. A method for concentrating a compound containing the group represented by the formula (I) from a fluid or for substantially decreasing the amount of a compound containing the group represented by the formula (I) in a fluid com-

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prising the steps of

- (a) preparing the compound according to any one of claims 1 to 8,
- (b) coupling the compound obtained in step (a) to a poly-  
5        meric matrix, and
- (c) contacting the fluid with the polymeric matrix ob-  
10        tained in step (b).

18. The method according to claim 17, wherein the fluid is he-  
10        modialysis water, drinking water or water derived from  
         rivers, lakes and oceans.